

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Katsuki Hazama

Application No.: 09/817,123

Confirmation No.: 1669

Filed: March 27, 2001

Art Unit: 3714

For: GAME MACHINE AND INFORMATION
COMMUNICATION SYSTEM USING DATA
CARRIER

Examiner: R. E. Mosser

REPLY BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Reply Brief is filed in response to the Examiner's Answer mailed May 22, 2007. Appellant has chosen to limit this reply to what is believed to be an error in the outstanding Office Action and Examiner's Answer in selecting U.S. Patent No. 5,853,327 (Gilboa) and its incorporation by reference of GB 2103943 (Blenkinsop et al.) as the primary reference(s) for rejecting the claims. More specifically, it is respectfully submitted that the outstanding Office Action and Examiner Answer are in error in selecting these pieces of background art as primary references because: **(1)** neither Gilboa nor Blenkinsop et al. discloses the functions of the apparatus limitations of claims 1 and 6; **(2)** neither Gilboa nor Blenkinsop et al. disclose the functional limitations of the processing operations of claims 1 and claim 6 that are directed toward generating and storing electrical power and not toward merely providing an excitation for a resonating circuit; and **(3)** both Gilboa and Blenkinsop et al. teach away from the function/operation of the claimed invention. Since Gilboa and Blenkinsop et al. form the foundation of the outstanding rejections and the arguments against all of the claims, it is respectfully submitted that even rejections not specifically mentioned herein are also subject to the same deficiencies. Therefore, identifying the deficiencies of

Gilboa and Blenkinsop et al. in disclosing the claimed invention will act to overcome each of the outstanding rejections.

DISCUSSION OF THE DEFICIENCIES BETWEEN OF THE APPLIED ART OF GILBOA AND BLENKINSOP ET AL.

The claimed invention is a game apparatus and information communication system comprising a data carrier that obtains electric power and information by receiving a radio wave from a reader through an antenna.¹ In particular, as shown in **FIG. 2** below, the present invention comprise a data carrier **1** that at least comprises an antenna circuit **2**, an operating power generating unit **3**, and a power generation notifying unit **4**.

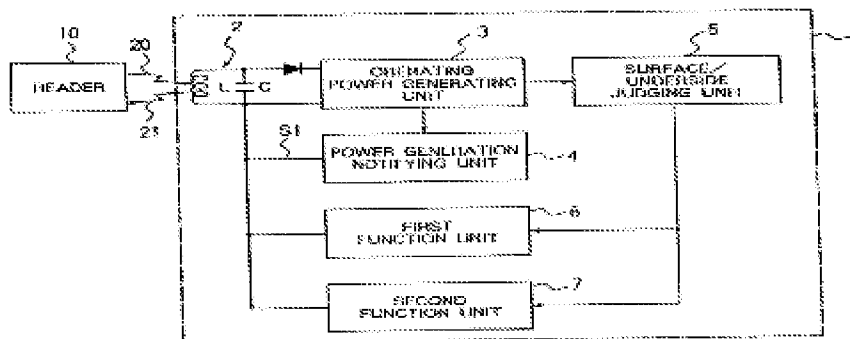


FIG. 2

Further, the antenna circuit **2** is provided to receive radio waves **20** transmitted from a reader **10** and to transmit radio waves **21** to the reader **10** from the data carrier **1**.² Furthermore, the operating power generating unit **3** is structured to generate operating power for the data carrier **1** from the antenna circuit **2** receiving the radio waves **20** transmitted from the reader **10**, and to store the electric power generated through electromagnetic induction in the operating power generating unit **3**.³

Moreover, the power generation notifying unit **4** detects when the operating power generating unit **3** stores in the capacitor **C** a predetermined quantity of electric power, and

¹ Hazama at ABSTRACT.

² *Id.* at **FIG. 2**; and page 13, lines 22-27.

³ *Id.* at **FIG. 2**; and page 13, line 36 to page 14, line 4.

notifies the reader **10** of this effect by outputting a completion-of-charging signal **S1** to the antenna circuit **2**, and notifies the reader **10** of it by transmitting the radio wave **21** from the antenna circuit **2**.⁴

Claim 1 recites in part:

. . . a data carrier having a *control means for transmitting and receiving driving electric power* and transferring the data between a respective one of said plural game pieces and said body;
means for notifying the first control device that the received driving electric power has reached a predetermined quantity of electric power (emphasis added).

In addition, claim 6, similarly recites in part:

a data carrier having a *control means for transmitting and receiving driving electric power* and transferring the data between an associated one of said plural game pieces and said body;
means for providing a notification that the received driving electric power has reached a predetermined quantity of electric power (emphasis added).

In consideration of the above discussion, in the claimed invention, the “means for notifying the first control device that the received driving electric power has reached a predetermined quantity of electric power,” as recited in claim 1; and the “means for providing a notification . . .,” as recited in claim 6 correspond to the power generation notifying unit **4**.

In contrast to the claimed invention, the outstanding rejection and Examiner’s Answer suggest that the feature of the limitation of the “means for notifying . . .” is implicitly provided by the resonant **LC** circuits of Gilboa and Blenkinsop et al.⁵ However, in the claimed invention, the **LC** circuit or antenna **2** of the invention corresponds instead to the “control means for transmitting and receiving driving electric power,” of the claimed invention. Thus, in consideration of the above-discussed differences between the claimed invention and the applied art, it is respectfully submitted that, as indicated in **element (1)**

⁴ *Id.* at **FIG. 2**; and page 14, lines 5-12.

⁵ See Examiner’s Answer at page 4, lines 4-10.

above: neither Gilboa nor Blenkinsop et al. discloses the functions of the apparatus limitations of claims 1 and 6, or any of the claims dependent thereon.

To further, explain the operation of the claimed invention, **FIG. 3** discloses the processing procedures performed with the data carrier **1** of **FIG. 2**. In particular, as shown in **FIG. 3** below, the operating power is generated in step **S2** by receiving the transmitted radio waves **20** with coil **L**; and in step **S3**, whether or not the predetermined quantity of electric power is generated, the capacitor **C** is charged.⁶ When the capacitor **C** is charged with the predetermined quantity of electric power, the reader **10** is notified.⁷

Further, when notified of that the capacitor **C** has stored up the predetermined quantity of operation power from the data carrier **1**, the reader **10** interrupts the transmission of the radio wave for a predetermined

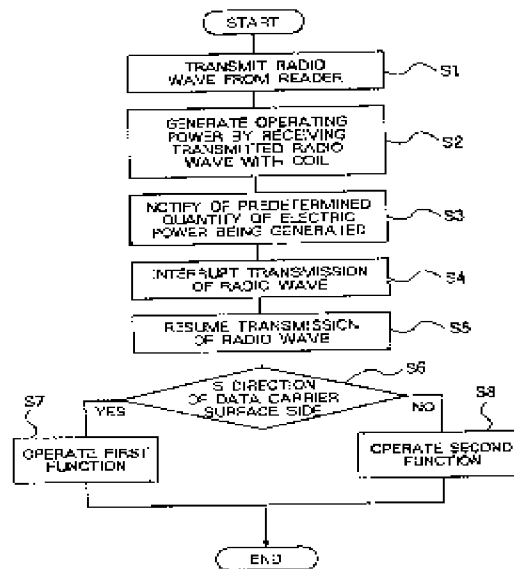


FIG. 3

period of time as shown in step **S4**.⁸ Furthermore, this interruption is conducted for just a time necessary for the data carrier **1** to recognize the interruption of the radio wave **20** transmission and, the reader **10**, after a predetermined time has elapsed since the transmission

⁶ *Id.* at **FIG. 3**; and page 15, lines 9-15.

⁷ *Id.* at **FIG. 3**; and page 15, lines 15-17.

⁸ *Id.* at **FIG. 3**; and page 15, lines 17-22.

of the radio waves **20** were interrupted, resumes the transmission of the radio waves **20** as shown in step **S5** of **FIG. 3**.⁹

In addition, it is respectfully submitted that the differences in the operation of the claimed invention and the applied art are also clearly illustrated in the characteristics of the operational waveforms of the claimed invention as opposed to those of Gilboa or Blenkinsop et al. In particular, as shown in **FIG. 6** below, when the transmission of the radio waves **20** from the reader **10** is interrupted and resumed, as discussed above for steps **S4** and **S5** of **FIG. 3**, respectively. From **FIG. 2**, **FIG. 3**, **FIG. 6** and the discussion above, it is clear

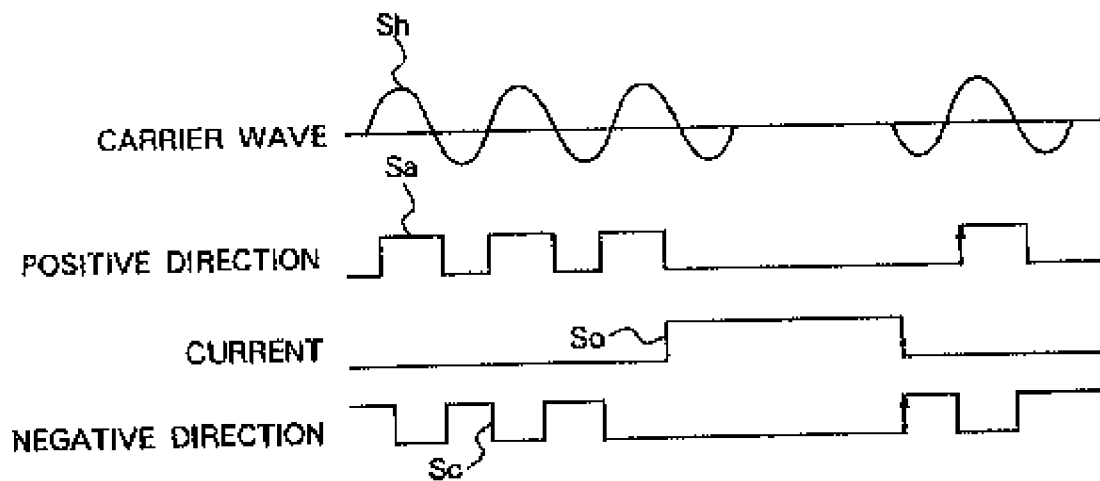


FIG. 6

that the radio carrier wave **20** is used to stimulate the **LC** circuit of the present invention is: (1) analog; (2) substantially continuous; and (3) directed at “generating operating power” by charging up the capacitor **C**; (4) rectifying the analog radio carrier waveform **20** with a diode; and storing the rectified voltage in the power generating unit **4**.

⁹ *Id.* at **FIG. 3**; and page 15, lines 22-29.

In direct contrast to the claimed invention, the operational waveforms of both Gilboa and Blenkinsop et al. disclose waveforms that are: (1) digital or pulse-like; and (2) directed toward producing a decreasing resonating waveform from the LC circuit. **FIG. 12** of Gilboa below clearly demonstrates the type of operational waveform (i.e., **Curve A**) that when applied to the **LC** circuit as an “excitation current signal” which results in a decreasing resonating waveform (i.e., **Curve C**).

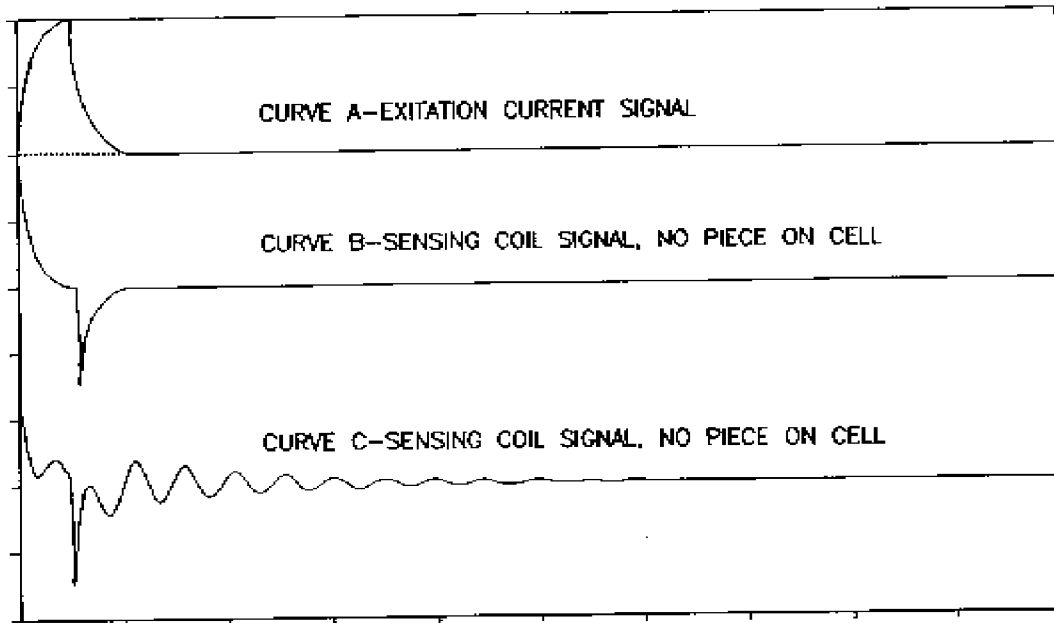
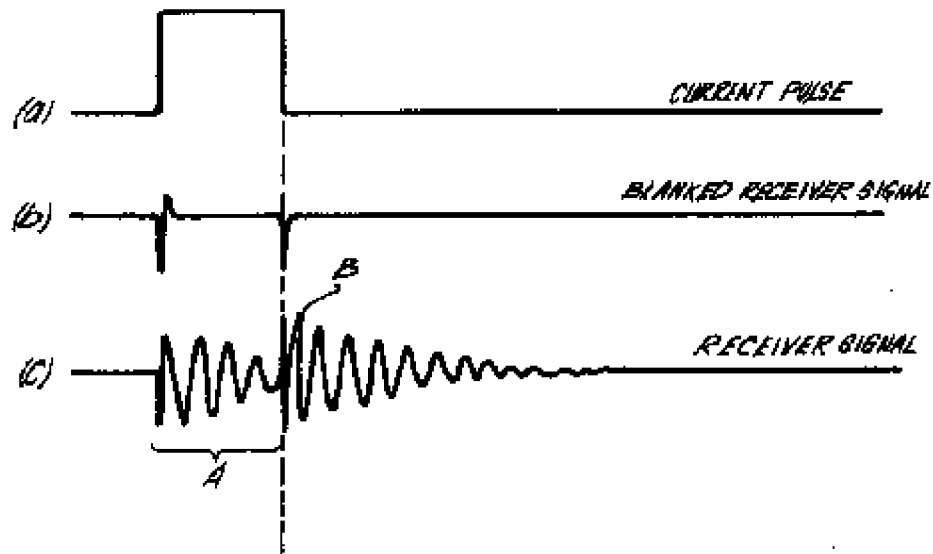


Fig. 12

FIG. 3.



Similarly, **FIG. 3** of Blenkinsop et al. above also discloses the similar operational waveform characteristics as those indicated for Gilboa. That is, Blenkinsop et al. discloses a digital or pulse-like excitation waveform (i.e., **Current Pulse**); that is (2) directed toward producing a decreasing, resonant waveform (i.e., **Receiver Signal**) from the LC circuit. Moreover, it should also be noted that neither Gilboa nor Blenkinsop et al. disclose otherwise storing the energy from the capacitor or and primarily utilize the energy to excite and resonate the LC circuit. Thus, as indicated above in **element (2)**, it is respectfully submitted that neither Gilboa nor Blenkinsop et al. disclose the functional limitations of the processing operations of claims 1 and claim 6, and claims dependent thereon, that are directed toward generating and storing electrical power and not toward merely providing an excitation for a resonating circuit.

Furthermore, considering that the claimed invention utilizes an analog waveform, that is substantially continuous and rectified to generate operating power as opposed to Gilboa and Blenkinsop et al. that use a digital waveform to generate a decreasing resonant waveform it is also respectfully submitted, as indicated in **element (3)** above that both Gilboa and Blenkinsop et al. teach away from the function/operations of the claimed invention.

As noted above, the Appellant respectfully submits the Examiner's Answer has: (1) ignored subject matter specifically defined in the claims; and (2) has alleged subject matter is disclosed in the references that cannot be found therein.

For these reasons discussed above, Appellant requests reversal of the rejection of claims 1, 6, 7, 10, 11, 15 and 39-40.

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Respectfully submitted,

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